

## Notes on the occurrence of *Anredera cordifolia* (Tenore) van Steenis (Basellaceae) - a non-indigenous prospective medicinal plant in North East India from Meghalaya

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[Received Revised 14.11.2012; Accepted 15.11.2012]

### Abstract

*Anredera cordifolia* (Tenore) van Steenis (Basellaceae) a non-indigenous potential medicinal plant is reported here from the state of Meghalaya as an extended distribution to North East India. Detailed citation, description, phenology, habit and distribution of this species are provided in the present communication.

**Key words:** *Anredera cordifolia*, potential medicinal plant, extended distribution, Meghalaya, North East India

### INTRODUCTION

The genus *Anredera* Jussieu (Basellaceae) comprises of 12 species and is native to the tropical and subtropical Americas and Caribbean (Eriksson 2007). Only 2 species are known to occur in India viz. *A. baselloides* (Kunth) Baillon and *A. cordifolia* (Tenore) van Steenis, both are from South India (Rasingam & Lakshminarasimhan 2012). The species *Anredera cordifolia* (Tenore) van Steenis is earlier reported from Nilgiri Biosphere Reserve, Tamil Nadu of South India by Rasingam & Lakshminarasimhan (2012). The same has been collected recently from Meghalaya in N.E. India. It was growing widely as weed near Laitumkhrah, Shillong (East Khasi Hills, Meghalaya) at an elevation of 1400 m. The species is cultivated as an ornamental in tropical and subtropical regions worldwide (Wagner *et al* 1999; Eriksson 2007) and has also become an aggressive weed in southern Africa, Australia, Europe, southern North America, the Pacific Islands and New Zealand (Starr *et al* 2003). The paper gives a brief description along with coloured photographs to facilitate its identification. The voucher specimens are deposited in ASSAM.

*Anredera cordifolia* (Tenore) van Steenis, Fl. Males. Ser 1, 5: 303. 1957; R. Eriksson, Kew Bull. 62: 311. 2007; Rasingam & Lakshminarasimhan, Rheedeia 22 (1): 16-17. 2012. *Boussingaultia cordifolia* Tenore, Ann. Sci. Nat. Bot. Ser. 3, 19: 355. 1853. [Fig. 1].

A twining vine. Stem glabrous, semi-succulent, producing small axillary bulbils. Leaves simple; lamina ovate to subcordate, fleshy, 2.0 – 7.5 x 1.5 – 6.5 cm, acute, rounded or often cordate at base; petioles very short, 0.5 – 1.5 cm. Inflorescence axillary, lax, much branched, sometimes simple, many-flowered; rachis 7 – 25 cm long; each flower subtended by a persistent bract; lower bracteoles broadly triangular, acute; upper bracteoles orbicular to broadly elliptic, greenish-white. Flowers bisexual, c. 5 mm across, fragrant; pedicels 2 – 3 mm long. Perianth inflexed, patent in anthesis, white; segments 5, ovate or oblong to elliptic,



PLATE I: *Anredera cordifolia* (Tenore) van Steenis: **Fig. 1.** Habit; **Fig. 2.** Inflorescence

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c. 2-3 mm, blunt at apex. Stamens 5, opposite to perianth segments, white; filaments apically reflexed in bud, spreading in anthesis. Styles white split into 3 stigmatic arms, each with 1 club-shaped or broadly ellipsoid stigma. Fruits not seen.

**Flowering:** July – August

**Habitat:** Roadside fences and fallow lands between 1000 and 2000 m amsl.

**Distribution:** India (Tamil Nadu and Meghalaya); America, Australia, China, Malaysia, Pacific Islands and South Africa.

**Exsiccatae:** INDIA, Meghalaya, East Khasi Hills, Laitumkhrah, 18.08.2012, *D.K. Roy 125999* (ASSAM).

**Notes:** *Anredera cordifolia* is distinguished from *A. baselloides* with ovate-subcordate lamina, inflorescence often much branched and the styles splitting into 3 stigmatic arms. Whereas, *A. baselloides* is recognized by its elliptic lamina, often unbranched inflorescences with rather stout axis and undivided styles.

**Uses:** Whole plant of *Anredera cordifolia* is frequently used as vegetables in Taiwan (Mao-Te *et al* 2007). The leaf has antioxidant activity; ascorbic acid and the phenolic compounds (Uchida 2003), used in the treatment of sexuality transmitted diseases and are sensitive against gram-positive and gram-negative bacteria (Tshikalange *et al* 2005). The leaves bear oleanolic acid content that has anti-inflammatory properties (Hammond 2006; Moura-Letts *et al* 2006). Medicinally active elements viz. Saponins, terpenoid, steroid, glycosides and alkaloid are also present in this plant species. The society in Javanese, Indonesia, trusted this plant as miracle of plant, can be treating of several diseases and make the body health, but the plant is not well documented, and science evidence is limited to establish as a medicinal herbal (Astuti *et al* 2011). In Meghalaya the Khasi people take young shoots and leaves in cooked.

### Acknowledgements

The authors are thankful to the Director, Botanical Survey of India, Kolkata for facilities and Dr. L. Rasingam, Botanical Survey of India, Deccan Regional Centre, Hyderabad for his expert comment on the identity of the species.

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